

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
ALEXANDRIA DIVISION

GEOSCOPE TECHNOLOGIES PTE. LTD.,

Plaintiff,

v.

GOOGLE LLC,

Defendant.

Case No. 1:22-CV-01331-MSN-JFA

DEMAND FOR JURY TRIAL

GEOSCOPE TECHNOLOGIES PTE. LTD.,

Plaintiff,

v.

APPLE INC.,

Defendant.

Case No. 1:22-CV-01373-MSN-JFA

DEMAND FOR JURY TRIAL

**DEFENDANTS' REPLY IN SUPPORT OF THEIR
JOINT MOTION FOR JUDGMENT ON THE PLEADINGS**

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TABLE OF ABBREVIATIONS

Abbreviation	Term
'104 patent	U.S. Patent No. 7,561,104
'358 patent	U.S. Patent No. 8,400,358
'494 patent	U.S. Patent No. 8,786,494
'753 patent	U.S. Patent No. 8,406,753
'264 patent	U.S. Patent No. 8,320,264
'784 patent	U.S. Patent No. 9,097,784
Apple	Defendant Apple Inc.
Google	Defendant Google LLC
Asserted Claims	'104 patent, claims 1, 2 '358 patent, claims 15, 18, 52 '494 patent, claims 1, 4, 25, 26, 35 '753 patent, claims 1, 32 '784 patent, claim 11 '264 patent, claims 13, 15, 20
Geoscope or Plaintiff	Plaintiff Geoscope Technologies Pte. Ltd.
'104 Family	The '104 patent, '358 patent, and '494 patent
Br.	Memorandum of Law in Support of Defendants' Joint Motion for Judgment on the Pleadings (No. 1:22-cv-1331-MSN-JFA, Dkt. 93; No. 1:22-cv-1373-MSN-JFA, Dkt. 83).
Opp.	Plaintiff's Opposition to Defendants' Motion for Judgment on the Pleadings Pursuant to Fed. R. Civ. P. 12(c) (No. 1:22-cv-1331-MSN-JFA, Dkt. 102; No. 1:22-cv-1373-MSN-JFA, Dkt. 90).
CC Order	Memorandum Opinion & Order (No. 1:22-cv-1331-MSN-JFA, Dkt. 105; No. 1:22-cv-1373-MSN-JFA, Dkt. 92).

TABLE OF EXHIBITS

Ex.	Description
A	U.S. Patent No. 5,327,144
B	U.S. Patent App. Pub. No. 2005/0243936

Geoscope’s arguments in its opposition brief cannot save the Asserted Claims from ineligibility under 35 U.S.C. § 101. At each step, Geoscope seeks to recast the claims to focus on features not recited in the claims, and then uses those features to argue that the claims are patent-eligible under Section 101 because they purport to provide a technological improvement. In doing so, Geoscope repeatedly asserts that the Court must credit its bare legal conclusions in the Complaint at the Rule 12 stage. Federal Circuit precedent directly forecloses each of those arguments. Unclaimed features are “irrelevant” to the Section 101 inquiry. *Am. Axle & Mfg., Inc. v. Neapco Holdings LLC*, 967 F.3d 1285, 1293 (Fed. Cir. 2020). A claim must be “directed to *non-abstract*” technological improvements to pass the Section 101 threshold. *Simio, LLC v. FlexSim Software Prods., Inc.*, 983 F.3d 1353, 1361 (Fed. Cir. 2020).¹ And “a district court need not accept a patent owner’s conclusory allegations of inventiveness.” *IBM Corp. v. Zillow Grp., Inc.*, 50 F.4th 1371, 1379 (Fed. Cir. 2022). Under the correct legal standards, each of the Asserted Claims is ineligible under Section 101.

I. THE ASSERTED CLAIMS OF THE ’104 FAMILY ARE INELIGIBLE UNDER SECTION 101

A. *Alice* Step One: The Asserted Claims Are Directed to the Abstract Idea of Determining Location Based on Data

1. Geoscope Contends That the Claimed Advance Is “Modifying” Data, but That Is Nothing More Than a Broad, Abstract Function

Geoscope disputes that the asserted claims of the ’104 Family are directed to the abstract idea of determining location based on data. Opp. 11. The focus of Geoscope’s central argument is the claims’ step of “modifying” data, a function indisputably performed for the purpose of “determining a location.” *See, e.g.*, ’494 patent, cl. 1. In particular, Geoscope argues that the claims require modifying data collected *indoors* to “eliminate the disparities” between that data

¹ All emphasis in quotations is added except where noted.

and *outdoor* data, which Geoscope contends “improv[es] the accuracy of geolocation” and represents a “technological improvement.” Opp. 11. This argument fails for several reasons.

As an initial matter, the claims are not limited to modifying indoor data to “eliminate the disparities” between that indoor data and outdoor data. For instance, representative claim 1 of the ’494 patent merely recites “modifying said observed network measurement data”—it does not specify whether the data is indoor or outdoor data, or even *how* “disparities” between indoor and outdoor data are to be “eliminated.”² The Federal Circuit consistently has held that “[t]he § 101 inquiry must focus on the language of the Asserted Claims themselves,’ and the specification cannot be used to import details from the specification if those details are not claimed.” *ChargePoint, Inc. v. SemaConnect, Inc.*, 920 F.3d 759, 769 (Fed. Cir. 2019) (citation omitted). The court therefore has rejected a patentee’s arguments where they are “not tethered to the asserted claims” themselves, holding that such arguments are “irrelevant” to both steps of the *Alice* test. *Trinity Info Media, LLC v. Covalent, Inc.*, --- F.4th ---, 2023 WL 4536366, at *6 (Fed. Cir. July 14, 2023); *Am. Axle*, 967 F.3d at 1293. Here, because the very core of Geoscope’s central argument is not even recited in the claims and misrepresents what the claims actually require, Geoscope’s argument should be rejected. *See Affinity Labs of Tex. v. DIRECTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016) (“The ‘abstract idea’ step of the inquiry calls upon us to look at the ‘focus of the claimed advance over the prior art.’”).

A simple review of the claim language confirms that what the claims actually require for the step of “modifying” data is only a broad, abstract function performed to carry out the abstract

² To the extent Geoscope suggests that the asserted claims are patent-eligible simply because they encompass the patent-eligible concept of “modifying” indoor data in particular for the purpose of “eliminating disparities” between that data and outdoor data (Opp. 11), that is wrong as a matter of law. Even if “modifying” indoor data specifically was non-abstract—it is not, and Geoscope has failed to explain otherwise—the Federal Circuit has made clear that “where there are multiple covered embodiments, and not all covered embodiments are patent-eligible,” the claims are patent-ineligible. *Mentor Graphics Corp. v. EVE-USA, Inc.*, 851 F.3d 1275, 1294–95 (Fed. Cir. 2017).

idea of determining location based on data. Br. 10. The claims do not even specify *how* to perform that function (or any other recited function). As discussed above, representative claim 1 of the '494 patent merely recites “modifying said observed network measurement data” and nothing more. That other independent claims may use well-known mathematical concepts as part of this step—*e.g.*, claim 25 of the '494 patent (determining an average of a signal characteristic) and claim 1 of the '104 patent (determining which signal characteristic has a greater magnitude)—also does not save the claims from ineligibility because mathematical concepts are themselves abstract and ineligible. *Id.* (citing, *e.g.*, *In re Bd. of Trs. of Leland Stanford Junior Univ.*, 991 F.3d 1245, 1250 (Fed. Cir. 2021) (“Courts have long held that mathematical algorithms for performing calculations, without more, are patent ineligible under § 101.”)); *ChargePoint*, 920 F.3d at 771 (“[a]dding one abstract idea . . . to another abstract idea . . . does not render [a] claim non-abstract”).

Nevertheless, Geoscope contends that “modifying” data represents a “specific technological improvement in geolocation systems” and provides “benefits.” Opp. 11–13. But the claims require no specific improvement to the existing technology to perform the function of “modifying” data—and Geoscope identifies none. The Federal Circuit repeatedly has made clear that, for patent eligibility, a claim must be “directed to *non-abstract* improvements to the functionality of” the existing technology itself. *Simio*, 983 F.3d at 1361 (citation omitted). The court has held in numerous instances that modifying or manipulating data itself is an abstract concept that is insufficient for eligibility. Br. 9 (citing, *e.g.*, *Univ. of Fla. Res. Found., Inc. v. Gen. Elec. Co.*, 916 F.3d 1363, 1368 (Fed. Cir. 2019) (holding ineligible claims directed to the “abstract idea of ‘collecting, analyzing, manipulating, and displaying data.’”)). For example, the Federal Circuit in *Hawk Tech. Sys., LLC v. Castle Retail, LLC*, 60 F.4th 1349, 1358 (Fed. Cir. 2023), recently held ineligible claims that “fail[ed] to recite a specific solution to make the alleged improvement” “‘concrete’ and at most recite[d] abstract data manipulation.” The court also has

held that purported “benefits” provided by a claim are insufficient for eligibility if the benefits merely “flow from performing an abstract idea in conjunction with” “well-known” technology. *BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1288 (Fed. Cir. 2018).

Here, as with the ineligible claims in *Hawk Tech.* and the numerous other cases that Defendants discussed in their opening brief (Br. 9–10; *infra* Section I.A.2), “modifying” data as recited in the claims is nothing more than an abstract function, and thus cannot alone provide the “non-abstract,” concrete technological improvement required for patent eligibility. Indeed, representative claim 1 of the ’494 patent and most of the other asserted claims *recite no specific technology at all* for “modifying” data or performing any other recited function. And although claims 15 and 18 of the ’358 patent recite “*circuitry* for modifying” the data, “circuitry” indisputably is conventional computer technology and the claims require no specific improvements to it. Accordingly, any possible “benefit” from the claims is merely the result of carrying out the abstract idea of determining location based on data by performing basic functions, such as “modifying” data, using only well-known technology.

2. Geoscope Fails to Meaningfully Address Defendants’ Cited Cases

Geoscope fails to distinguish Defendants’ cited cases involving ineligible claims directed to collecting, analyzing, and outputting data, regardless of the field of use. Br. 8–9 (citing, *e.g.*, *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016) (claims to “collecting information, analyzing it, and displaying certain results of the collection and analysis”)); *see also Trinity Info Media*, 2023 WL 4536366, at *4 (same). In particular, Defendants explained that the Federal Circuit and other courts, including ones in this District, have followed this precedent to hold in numerous instances that claims to collecting, analyzing, and outputting data—including in the context of geolocation and location determination—were ineligible. Br. 8–9 (citing, *e.g.*, *Automated Tracking Sols., LLC v. Coca-Cola Co.*, 723 F. App’x 989 (Fed. Cir. 2018), *CalAmp*

Wireless Networks Corp. v. ORBCOMM, Inc., 233 F. Supp. 3d 509, (E.D. Va. 2017), and *GeoComply Solutions Inc. v. Xpoint Servs. LLC*, 2023 WL 1927393, at *6 (D. Del. Feb. 10, 2023)).

Geoscope rejects all of these cases based on two conclusory arguments. Opp. 15–17. *First*, Geoscope contends that Defendants have “rewrit[ten] the claims to improperly oversimplify them” as “merely ‘collecting,’ ‘modifying,’ or ‘comparing’ data.” Opp. 11, 15–16. Yet, Geoscope fails to identify what the asserted claims require beyond these functions. Indeed, “collecting,” “modifying,” and “comparing” data are words taken straight from the language of the asserted claims themselves, and are no different from those recited in the geolocation and location-determination patent claims held ineligible in *Automated Tracking* (“receiv[ing]” and “generat[ing]” data in a system for “locating, identifying and/or tracking of an object,” 723 F. App’x at 993); *CalAmp* (“obtain[ing]” data and “determin[ing]” results based on that data to “determin[e] whether an article tracking device is within a spatial zone,” 233 F. Supp. 3d at 512); and *GeoComply* (“collecting,” “transmitting,” “receiving,” and “providing” data to “determin[e] a geo-location,” 2023 WL 1927393, at *1). Geoscope entirely fails to explain otherwise.

Second, although Geoscope acknowledges the Federal Circuit’s holding that the ineligible claims in *Electric Power* were directed to the abstract idea of “collecting information, analyzing it, and displaying certain results of the collection and analysis,” rather than “any particular assertedly *inventive technology for performing those functions*” (830 F.3d at 1354), Geoscope again repeats its argument that the asserted claims of the ’104 Family are patent-eligible because “they are directed to an improvement in an existing technological process.” Opp. 17; *id.* at 11, 16. But the quote from *SRI Int’l Inc. v. Cisco Sys., Inc.*, 930 F.3d 1295, 1303 (Fed. Cir. 2019), on which Geoscope relies for this assertion (Opp. 17)—that claims may be patent-eligible if they are “directed to a *technological solution* to a technological problem”—only further confirms the ineligibility of the asserted claims. As discussed, “modifying” data is nothing more than an

abstract function, and thus it cannot possibly be the “non-abstract,” “technological solution” or improvement required for eligibility. *Supra* Section I.A.1. Geoscope fails to identify in the claims any “particular assertedly inventive technology for performing” this basic function of “modifying” data. *Elec. Power*, 830 F.3d at 1354. Nor could Geoscope identify any. As Defendants have explained, the ’104 Family’s specification makes clear that “modifying” data can be achieved simply by “subtracting or adding” from and to the data. Br. 5 (citing ’494 patent, 7:7–10).

3. Geoscope’s Misplaced Reliance on Other Cases Should Be Rejected

Geoscope relies only on inapplicable cases involving claims that, unlike those asserted here, expressly required specific technological improvements and unconventional configurations.

Geoscope’s lead case (Opp. 14–15), *Thales Visionix Inc. v. United States*, 850 F.3d 1343, 1348–49 (Fed. Cir. 2017), dealt with claims that are nothing like those asserted here. In *Thales*, the Federal Circuit held that claims to a “system for tracking the motion of an object relative to a moving reference frame” were patent-eligible because they used “inertial sensors in a *non-conventional* manner” and required a “particular,” “*unconventional configuration* of [the] sensors” “to reduce errors in measuring the relative position and orientation of a moving object on a moving reference frame.” *Id.* at 1344, 1348–49. In contrast, the asserted claims here do not require the use of any technology in a “non-conventional manner” or any “particular” “unconventional configuration” of components. The claims either recite no particular components at all for performing the functions of “collecting,” “modifying,” and “comparing” data, or involve only well-known, conventional technology (*e.g.*, “circuitry”) functioning in its routine manner. *Supra* Section I.A.1. Geoscope’s conclusory assertion that the “claims are directed to particular configurations” like those in *Thales* (Opp. 15)—without identifying what those configurations are or a limitation requiring any particular configuration—should be rejected. *IBM*, 50 F.4th at 1379.

The patent claims at issue in Geoscope’s other cited cases have no relation to location determination, and in any event involved claims that also required specific changes and improvements to the operation of the existing technology. Opp. 14, 16–18. For example, Geoscope relies on *Uniloc USA, Inc. v. LG Elecs. USA, Inc.*, 957 F.3d 1303 (Fed. Cir. 2020), to argue that “claims involving data manipulation and transmission” are not necessarily patent-ineligible. Opp. 17. In *Uniloc*, however, the Federal Circuit held that claims to an improved communication system technology were patent-eligible because they provided a specific technological improvement that fundamentally “*change[d] the normal operation* of [a] communication system itself.” *Id.* at 1308. The specification explained that “[i]n conventional systems,” “primary [base] stations alternate[d] between sending inquiry messages to identify new secondary stations and polling secondary stations . . . to determine whether they ha[d] information to transmit.” *Id.* at 1305. The *Uniloc* claims, however, required specifically manipulating the “inquiry messages” to include a “data field for polling,” which “*changed the normal operation*” of the base station itself so that “primary base stations” could now simultaneously send inquiry and polling transmissions. *Id.* These concrete claim limitations “eliminate[d] or reduce[d] the delay present in conventional systems,” and thus specifically improved base stations by allowing them to “accommodate additional devices, such as battery-operated secondary stations, without compromising performance.” *Id.* at 1308. Here, in contrast, the asserted claims of the ’104 Family require no such “change” to the “normal operation” of the existing technology—whether to “modify” data or to perform any of the other functions recited in the claims.

4. Geoscope’s Remaining Arguments Fail

None of Geoscope’s additional arguments saves the claims from ineligibility.

Functional Claim Language. Geoscope, for instance, argues that the claims need not “specify how the steps of the claims occur.” Opp. 18–19. But that argument is directly at odds

with Federal Circuit precedent recognizing that the use of purely functional claim language, such as “collecting,” “comparing,” and “modifying,” is indicative of ineligibility, and that the “essentially result-focused, functional character of claim language has been a frequent feature of claims held ineligible under § 101.” *Elec. Power*, 830 F.3d at 1356; Br. 10. The court has reasoned that these types of claims “[a]re drafted in such a result-oriented way that they amount[] to encompassing ‘the principle in the abstract’ no matter how implemented.” *Interval Licensing LLC v. AOL, Inc.*, 896 F.3d 1335, 1343 (Fed. Cir. 2018); *Two-Way Media Ltd. v. Comcast Cable Commc’ns*, 874 F.3d 1329, 1337 (Fed. Cir. 2017) (holding ineligible claims that “d[id] not sufficiently describe how to achieve” results “in a non-abstract way”). Here, although Geoscope argues that the claims “explain what data is collected, what data is modified, and how the modifications relate to the final determination of location” (Opp. 19), it never explains whether the claims specify *how* these functions, including “modifying” data, are to be performed. The claims contain no such limitation, and thus fall squarely in the category of claims that the Federal Circuit has repeatedly held ineligible under Section 101.

Representative Claim. Geoscope also disputes that claim 1 of the ’494 patent is representative of the other asserted claims of the ’104 Family. Opp. 22–23. But Geoscope fails to identify any limitation in the other claims that would materially affect the analysis. The Federal Circuit repeatedly has upheld determinations of ineligibility, including at the Rule 12 stage, based on a representative claim where, as here, the patentee failed to “present any ‘meaningful argument for the distinctive significance of any claim limitations’ not found in” that claim. *Data Scape Ltd. v. Western Digital Corp.*, 816 F. App’x 461, 464 (Fed. Cir. 2020); *see also Hawk Tech.*, 60 F.4th at 1353 n.1 (affirming dismissal on the basis that a representative claim was ineligible, where the patentee did “not meaningfully argue that there [was] any distinctive significance between the” claims at issue “for eligibility purposes”).

For instance, Geoscope refers to claims that recite the use of “an average value” or “greater magnitude signal characteristic” as part of the step of “modifying” data. *Id.* at 23. But this simply repeats Geoscope’s central—and flawed—argument that “modifying” data is the claimed advance. *Supra* Section I.A.1. And although Geoscope concludes that “claims containing mathematical concepts may be patent-eligible,” it fails to explain how these known mathematical concepts require or provide a specific technological improvement. Br. 10, 12.

Geoscope also identifies claims that recite collecting data for “non-uniform grid points.” Opp. 23. But these claims merely involve collecting a preexisting type of data (*i.e.*, non-uniform grid point data), without requiring any new or improved manner of collecting, using, or even creating that data. Br. 13–14. Geoscope entirely fails to explain how these claims require a materially different inquiry. Finally, Geoscope identifies claims requiring that “one of the data transmitters be outside the network.” Opp. 24. Although Geoscope contends that this is a “new configuration of conventional hardware” (*id.*), it identifies no support for the assertion and does not even try to explain how the “configuration” requires a specific technological improvement. Nor does it attempt to articulate how this limitation renders those claims meaningfully different for purposes of eligibility. These empty arguments should be rejected.

B. *Alice* Step Two: The Asserted Claims Lack an Inventive Concept

In their opening brief, Defendants provided a limitation-by-limitation analysis for each asserted claim, and explained that each lacks an inventive concept. Br. 11–14. In its opposition, Geoscope fails to identify any claim elements that could confer an “inventive concept” amounting to “significantly more than” the covered abstract idea. *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 218 (2014).

Instead, Geoscope merely repeats its Step One argument that “modifying” data is the claimed advance. Opp. 19–22. It articulates the bare legal conclusion that “modifying observed

network measurement data was not well-understood, routine, or conventional,” but never explains why that is. Opp. 20. And although Geoscope stresses that the analysis is a “fact-based inquiry,” Geoscope itself identifies no facts showing that the step of “modifying” data as recited in the claims requires any specific technological improvement. Nor could it. The ’104 Family specification confirms that the “modifying” function can be achieved simply by “subtracting or adding” to and from the data. *Supra* Section I.A.2; Br. 5 (citing ’494 patent, 7:7–10). Geoscope identifies no other claim elements, much less specifically improved technology, that could amount to “significantly more” than the abstract idea of determining location based on data. Geoscope’s conclusory assertions to the contrary should be rejected. *IBM*, 50 F.4th at 1379.

The Federal Circuit has explained that “[i]t has been clear since *Alice* that a claimed invention’s use of the ineligible concept to which it is directed cannot supply the inventive concept that renders the invention ‘significantly more’ than the ineligible concept.” *BSG*, 899 F.3d at 1290. “Modifying” data in the claims indisputably is performed for “determining a location of a mobile station,” and thus is necessarily part of the abstract idea to which the claims are directed: determining location based on data. Br. 11. Nevertheless, Geoscope argues—again, without explanation—that “modifying” data is somehow not part of that abstract idea. But if “modifying” data in the claims is not performed for determining location, then what is its purpose in the claims? Geoscope doesn’t say. Geoscope’s conclusory assertion should be ignored.

Thus, the asserted claims of the ’104 Family are directed to the abstract idea of determining location based on data, and lack any inventive concept. The claims therefore are ineligible.

II. THE ASSERTED CLAIMS OF THE ’753 PATENT ARE INELIGIBLE UNDER SECTION 101

A. *Alice* Step One: The Asserted Claims Are Directed to the Abstract Idea of Organizing Data and Determining Location Based on Data

1. The Claim Step of “Generating One or More Grid Points” Lacks the Necessary Specificity and Is Therefore Abstract

The asserted claims of the '753 patent are directed to a location-determination method in which measurements taken from a mobile device to be located are compared against a database containing measurement data from known locations—in other words, determining an unknown location by looking at information about known locations that has been organized into a directory. Br. 16–18. The Federal Circuit recently held that similar claims to matching a new location against a database of known locations were abstract and thus ineligible under Section 101. *Sanderling Mgmt. Ltd. v. Snap Inc.*, 65 F.4th 698, 701–03 (Fed. Cir. 2023).

Geoscope disputes none of this. Instead, it contends only that the claims are non-abstract because the claim step of “generating one or more grid points for said calibration data”—*i.e.*, generating the database of known locations discussed above—incorporates “a specific technological improvement in geolocation systems.” Opp. 24–25. But “[t]he § 101 inquiry must focus on the language of the Asserted Claims themselves.” *ChargePoint*, 920 F.3d at 769 (Fed. Cir. 2019) (citation omitted). And nothing in the utterly generic claim language recites the “specific technological improvement” that Geoscope touts.

That is fatal to Geoscope’s argument. To avoid ineligibility, a claim must “ha[ve] the specificity required to transform [the] claim from one claiming only a result to one claiming a way of achieving it.” *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1167 (Fed. Cir. 2018). The claims here say only that “grid points” are “generat[ed],” without “recit[ing] a specific solution to make the alleged improvement . . . ‘concrete.’” *Hawk Tech.*, 60 F.4th at 1358.³ And nothing in Geoscope’s opposition addresses this fundamental problem. Geoscope asserts variously that “calibration data [can] be used to create a denser ‘map’ of known locations associated with network

³ To the extent Geoscope suggests that the asserted claims are patent-eligible simply because they encompass the patent-eligible concept of “non-uniform grid points,” Opp. 25, that is incorrect as a matter of law. Even if non-uniform grid points were non-abstract (and they are not), “where there are multiple covered embodiments, and not all covered embodiments are patent-eligible,” the claims are patent-ineligible. *Mentor Graphics*, 851 F.3d at 1294–95.

data” (Opp. 25); that “grid points are something new that must be determined from the analysis of calibration data” (*id.* at 26); that the “claims involve analysis of data to generate grid points” (*id.* at 27); and that the “claims are directed to the generation, evaluation, selection, and use of new data structures to overcome challenges faced by conventional geolocation systems” (*id.* at 28). But Geoscope never identifies anything in the actual language of the claims that underlies these increasingly baroque descriptions. That is, nothing in the claims requires the grid points to be (1) arranged in a “denser ‘map’ of known locations,” *id.* at 25; (2) “determined from the analysis of calibration data,” *id.* at 26–27; or (3) organized in any specific format, much less any “new data structures,” *id.* at 28. These omissions are particularly notable given that Geoscope has never asked to construe the relevant claim limitation to require any of these features.⁴

2. Geoscope’s Contentions Contradict Binding Precedent

It is therefore ironic that Geoscope accuses Defendants of “rewriting the claims,” Opp. 25, when Geoscope’s entire argument rests on the premise that a specific improvement somehow can be found in generic claim language. Geoscope’s cited cases are irrelevant for the same reason. Whereas the claims here simply recite “generating one or more grid points,” in each of Geoscope’s cases, the *claims themselves* described in detail “a specific improvement to the way computers operate.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336 (Fed. Cir. 2016). In *Enfish*, for example, the claims were “specifically directed to a *self-referential* table for a computer database,” an improvement that the Federal Circuit emphasized was “reflected in [the] claim language.” *Id.* at 1337 (emphasis in original). The claims, as construed, laid out a “four-step algorithm” for creating and organizing such a table. *Id.* In *SRI Int’l*, the claims were “directed to an improvement

⁴ Geoscope’s reliance on the benefits of “non-uniform grid points,” Opp. 25, does not help its case. The Court has construed the term “grid point” to mean simply “a point associated with representative calibration data for an area.” CC Order 18–20. Although grid points may be non-uniform, the claims are not so restricted, and any benefits that may flow from the use of “non-uniform grid points” cannot be ascribed to the claims.

in computer network technology,” because the claims themselves “recite[d] using network monitors to detect suspicious network activity based on analysis of network traffic data, generating reports of that suspicious activity, and integrating those reports using hierarchical monitors.” 930 F.3d at 1303. Geoscope’s other cases (Opp. 28) are in the same vein. *See Adasa Inc. v. Avery Dennison Corp.*, 55 F.4th 900, 908 (Fed. Cir. 2022) (focusing on claim language and claim construction in finding claim non-abstract); *Trs. of Columbia Univ. in City of N.Y. v. Symantec Corp.*, 425 F. Supp. 3d 601, 616 (E.D. Va. 2019) (same).

By contrast, nothing in the claims here explains how “grid points” are generated. In cases like this one where the claims recite a result without explaining how it is achieved, the Federal Circuit has regularly found claims patent-ineligible. In *Free Stream Media Corp. v. Alphonso Inc.*, for example, the claims required “overcoming the supposed communication barriers between a television and a mobile device” to deliver “targeted content” to the mobile device based on content displayed on the television. 996 F.3d 1355, 1362–63, 1365 (Fed. Cir. 2021). The claims were held abstract because “the asserted claims do not at all describe how that result is achieved,” and they did not “incorporate any such methods” allegedly described in the specification. *Id.* at 1363–64. The same is true for the generation of “grid points” in the claims here. The Federal Circuit has reached similar conclusions in other similar cases. *See, e.g., Ericsson Inc. v. TCL Comm’n Tech. Holdings Ltd.*, 955 F.3d 1317, 1325–26 (Fed. Cir. 2020) (claims for “controlling access to” computer resources were abstract because they did not “specify how”); *Secured Mail Sols. LLC v. Universal Wilde, Inc.*, 873 F.3d 905, 910 (Fed. Cir. 2017) (claims were abstract because they “merely recite[d] that [a] unique identifier is generated” with “no description of how”); *see also* Br. 18. Notably, in each of these cases, the Federal Circuit explicitly rejected a patentee’s assertion that the claims recited a specific improvement to technology, because no such specific

improvement could be found in the claims. *Free Stream Media*, 996 F.3d at 1364–65; *Ericsson*, 955 F.3d at 1327–28; *Secured Mail*, 873 F.3d at 910–11. This Court should follow suit.

B. *Alice* Step Two: The Asserted Claims Lack an Inventive Concept

At *Alice* Step Two, Geoscope again focuses on a single contention: that “generating grid points that can be selected and used for geolocation” constitutes an inventive concept. Opp. 29; *see id.* at 30 (attempting to distinguish *Electric Power* on the basis that “the generation and use of the novel grid points of the Patents-in-Suit is inventive”); *id.* (arguing that Defendants’ arguments are “flawed” because “the generation and use of the claimed grid points for geolocation is *itself* something unconventional and inventive”); *id.* at 31 (arguing that “there are important relationships between limitations of the ’753 Patent claims with respect to how the grid points are generated, evaluated, selected, and used for geolocation”).

Geoscope is wrong for several reasons. For one thing, “a claimed invention’s use of the ineligible concept to which it is directed cannot supply the inventive concept that renders the invention ‘significantly more’ than that ineligible concept.” *BSG*, 899 F.3d at 1290. The abstract idea underlying the Asserted Claims of the ’753 patent includes “organizing data,” and specifically organizing data “previously collected from known locations . . . into a directory.” Br. 16. Geoscope cannot save the claims from ineligibility simply by recasting that process of organizing data as an inventive concept.

Nor would it be enough if, as Geoscope argues, the patented solution improved the “accuracy and efficiency of geolocation.” Opp. 29–30. The benefits that flow from “applying the abstract idea on a computer” do not “provide a sufficient inventive concept.” *Sanderling*, 65 F.4th at 705. The Federal Circuit’s *Hawk Tech.* decision is instructive. There, the patentee argued that “the claims recite an inventive solution” which achieved various benefits in the context of image transmission. 60 F.4th at 1358. The Federal Circuit held that, “even if the claims achieved this

purported solution, they only use[d] generic functional language to do so and require[d]” only well-known and conventional technology functioning in its routine manner. *Id.* (cleaned up). The same is true here. Geoscope does not even dispute Defendants’ contention that “the claims do not place any limitation on *how* the set of grid points should be generated.” Opp. 30 (quoting Br. 19). Geoscope’s response to that point—that the lack of specificity is “irrelevant” because “the generation and use of the claimed grid points for geolocation” alone constitutes an inventive concept—directly contravenes binding precedent.

It similarly makes no difference whether or not the patented techniques for generating grid points are “new” or “novel,” as Geoscope emphasizes. Opp. 30. Even if that were true (and it is not), it is not “enough for subject-matter eligibility [under § 101] that claimed techniques be novel and nonobvious in light of prior art.” *SAP Am.*, 898 F.3d at 1163. And Geoscope’s criticism that Defendants did not address the “ordered combination” of the claim elements (Opp. 30–31), misses that Defendants treated the claims as a whole before addressing the individual limitations (Br. 18–19). The asserted claims of the ’753 patent lack an inventive concept, and the Court should find them patent-ineligible under Section 101.

III. CLAIM 11 OF THE ’784 PATENT IS INELIGIBLE UNDER SECTION 101⁵

A. *Alice* Step One: Claim 11 of the ’784 Patent Is Directed to the Abstract Idea of Associating Observed Location Data With Known Points on a Map

1. Geoscope Contends That the Claimed Advance Is an “Unconventional Approach to Correcting Calibration Data,” Which Is an Unclaimed Feature and Therefore Irrelevant to the Inquiry

Geoscope disputes that claim 11 of the ’784 patent is directed to the abstract idea of associating an observed location with known points on a map. Br. 23–28. Geoscope contends that

⁵ Given the Court’s holding that certain terms recited in asserted claim 11 of the ’784 patent are indefinite, CC Order at 24–30, the portion of Defendants’ Motion relating to the ’784 patent may be mooted once the Court enters judgment as to Geoscope’s infringement claims against Defendants concerning the ’784 patent.

claim 11 instead is directed to an “unconventional approach to *correcting calibration data*.” Opp. 34, 31. But Geoscope never identifies what in the claim actually requires “correcting calibration data,” let alone an “unconventional approach” for achieving that result. *Id.* at 31–36. Indeed, although Geoscope repeatedly argues that the claim recites “several specific steps laying out how supplemental information is used to correct calibration data,” Geoscope never specifies what those steps are. *Id.* at 33–34. That is because nothing in the language of claim 11 requires “correcting calibration data,” or replacing “bad” or inaccurate data with data believed to be more accurate. Br. 21. Geoscope’s argument therefore should be rejected as irrelevant. *ChargePoint*, 920 F.3d at 769; *Trinity Info Media*, 2023 WL 4536366, at *6 (claimed advance must be “tethered to the asserted claims themselves”); *Am. Axle*, 967 F.3d at 1293 (“[F]eatures that are not claimed are irrelevant” to the “*Mayo/Alice* analysis”).

Geoscope also contends that Defendants ignore that claim 11 provides a “technological advantage [that] is a *result* of the specific steps of the claimed method.” Opp. 33 (emphasis in original). Again, however, Geoscope fails to identify what those “specific steps” in the claim are, how they provide this purported “advantage,” and what specific technological improvement they require to achieve that benefit. Thus, Geoscope’s empty assertion again fails under clear Federal Circuit precedent holding that a “purported benefit” “not captured in the claims” is insufficient to save the claims from ineligibility. *Weisner v. Google LLC*, 51 F.4th 1073, 1083 (Fed. Cir. 2022).

As Defendants explained in their opening brief, at the heart of claim 11 is merely the performance of basic functions to carry out the abstract idea of associating an observed location with known points on a map: (1) *observing* data with a wireless device at a geographic location, (2) determining a “*point*” that is “in proximity” to the “most likely street” on which the device is located, and (3) *associating* that point with the observed data in a “calibration database.” Br. 21, 23–24. Claim 11 requires no specific technological improvements to perform any of these

functions. Indeed, the claim is so vague that it does not even recite any limiting criteria for determining that a “point” is “in proximity” to a “most likely street.” *Id.* at 27–28. Geoscope fails to meaningfully address any of these fundamental problems with the claim.⁶

2. Geoscope’s Remaining Arguments Fail

None of Geoscope’s additional arguments saves claim 11 from ineligibility.

Geoscope Fails to Address Defendants’ Cited Cases. Defendants discussed in their opening brief the numerous cases in which the Federal Circuit and other courts, including in this District, have held ineligible claims directed to collecting, analyzing, and storing data—including for the purpose of location determination. Br. 25–26 (citing, *e.g.*, *Elec. Power Grp.*, 830 F.3d at 1353–55 (“collecting information, including when limited to particular content,” “analyzing information by steps people go through in their minds, or by mathematical algorithms,” and “presenting the results of abstract processes of collecting and analyzing information” are abstract ideas) (collecting cases holding ineligible claims to collecting and analyzing information); *Move, Inc. v. Real Estate All. Ltd.*, 721 F. App’x 950, 952–53 (Fed. Cir. 2018) (ineligible claims directed to the abstract idea of “collecting and organizing information about available real estate properties and displaying this information on a digital map that can be manipulated by the user”); *BSG*, 899 F.3d at 1286 (ineligible claims directed to the abstract idea of “considering historical usage information while inputting data” into a database)).

Geoscope perfunctorily rejects all of these cases except one (Opp. 34): *Weisner v. Google*, which involved ineligible claims “directed to ‘collect[ing] information on a user’s movements and location history [and] electronically record[ing] that data.’” 51 F.4th at 1082. Geoscope argues

⁶ The Court’s recent Memorandum Opinion & Order regarding claim construction confirms the vagueness of the claim, and in particular of the requirement that a “point” be “in proximity” to a “most likely street.” CC Order 24–28.

that *Weisner* is “readily distinguishable” because there the “specification, claims, and patentee’s own statements indicated that the claims were directed to mere ‘automation or digitization’ of conventional activity.” Opp. 34. But Geoscope mischaracterizes the Federal Circuit’s analysis in that case. In *Weisner*, the court first held that the “claim language support[ed] [its] conclusion that the claims” were directed to an abstract idea. 51 F.4th 1082. It then determined there was nothing in the intrinsic record that contradicted its conclusion that the “steps in the body of the claim describe a generic process for achieving th[is] goal” of data collection and storage. *Id.* at 1082–83. Contrary to Geoscope’s assertion, the court’s holding was not limited to its conclusion that the claims merely “automated” or “digitized” a conventional activity. *Id.* Here, like the ineligible *Weisner* claims and the several other cases that Geoscope ignored, claim 11 of the ’784 patent is focused on collecting, analyzing, and storing data for determining location to implement the abstract idea of associating an observed location with known points on a map.

Geoscope’s Cited Case Is Inapplicable. Geoscope cites only one decision that it contends involved claims analogous to claim 11 (Opp. 33–34): *Visual Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253 (Fed. Cir. 2017). The *Visual Memory* claims, however, bear little resemblance to claim 11. The Federal Circuit held that the *Visual Memory* claims were patent-eligible because they provided an “improved computer memory system” with specifically “programmable operational characteristics defined by [a] processor connected to the memory system,” which “permit[ted] ‘different types of processors to be installed with the subject memory system without significantly compromising their individual performance’”—an operation that prior art memory systems could not perform without “performance problems.” *Id.* at 1259. Here, unlike the *Visual Memory* claims, claim 11 requires no “improved computer memory system” with particular “programmable operational characteristics”—and Geoscope identifies none. Instead, claim 11 involves only collecting, analyzing, and storing data for generating a database.

Functional Claim Language. Finally, Geoscope disagrees that claim 11 invokes purely functional language, such as “determining,” “obtaining,” and “entering” data into a database. Opp. 34. But Geoscope never specifies what beyond those abstract functions the claim actually requires, let alone a specific technological improvement to perform the functions. As Defendants have explained, the Federal Circuit has recognized that the use of purely functional claim language is indicative of ineligibility, as it amounts to “encompassing ‘the principle in the abstract’ no matter how implemented.” *Supra* Section I.A.4; *Elec. Power*, 830 F.3d at 1356; *Interval Licensing*, 896 F.3d at 1343; *Two-Way Media*, 874 F.3d at 1337; Br. 10. Here, claim 11 does not specify *how* the steps of “determining,” “obtaining,” and “entering” data are to be performed. Br. 27–28. Nor does it recite any limiting criteria for determining that a “point” is “in proximity” to a “most likely street.” *Id.* Thus, what is left of the claim is nothing more than broad, abstract functions performed to carry out the abstract idea of associating an observed location with known points on a map.

B. *Alice* Step Two: The Claim Lacks Any Inventive Concept

Whether the elements of claim 11 are considered individually or in combination, the claim lacks any inventive concept that could amount to “significantly more” than the abstract idea of associating an observed location with known points on a map. Br. 28–29.

At Step Two, Geoscope merely repeats its Step One argument that claim 11 is directed “to an improved, unconventional approach to correcting errors in calibration data.” Opp. 35. Yet, again, Geoscope fails to identify what in the claim actually requires this purported improvement—there is no such requirement. Geoscope’s reliance on this unclaimed feature is “irrelevant” to the analysis and should be ignored. *Am. Axle*, 967 F.3d at 1293. In addition, Geoscope argues that claim 11 “recites a particular arrangement of steps that provide a technological improvement to conventional geolocation systems by enabling a new way to check and correct collected calibration data.” Opp. 36. But Geoscope never identifies what that “particular arrangement of steps” is,

what the steps are, or how they required a specific technological improvement. Geoscope's conclusory assertion should be rejected. *IBM*, 50 F.4th at 1379.

Claim 11 of the '784 patent is directed to the abstract idea of associating observed location data with known points on a map, and lacks any inventive concept. The claim is ineligible.

IV. THE ASSERTED CLAIMS OF THE '264 PATENT ARE INELIGIBLE UNDER SECTION 101⁷

A. *Alice* Step One: The Asserted Claims Are Directed to the Abstract Idea of Using an Existing Communication Channel to Determine Signal Loss

The asserted claims of the '264 patent are directed to a method for determining “path loss,” *i.e.*, the loss in a signal between where it is sent and where it is received. Dkt. 1-6 ('264 patent), 1:19. Instead of “[d]edicating a specific [frequency] channel for path loss measurements,” the purported invention of the '264 patent is the concept of using “an existing channel engaged in active communication” for measuring path loss. *Id.* at 1:21–29, 1:55–61, 3:51–60. Accordingly, the claims require—without any additional detail—“identifying a first frequency channel in an active communication between the wireless device and the receiver without disabling any other communication channel,” and then using that frequency channel to determine path loss. *Id.* cl. 13.

Geoscope argues that “using an active communication channel—without disabling any other communication channel—to determine path loss values [is] a specific improvement over conventional systems” and therefore not abstract. Opp. 36–37 (emphasis omitted). As Defendants noted in their motion, however, “[t]he asserted claims do not specify *how* the frequency channel

⁷ Given the Court's construction of certain terms recited in the asserted claims of the '264 patent, CC Order at 30–34, Defendants understand that Geoscope intends to drop its assertion that Defendants infringe the '264 patent under the Court's constructions. The portion of Defendants' Motion relating to the '264 patent thus may be mooted if the Court enters judgment as to Geoscope's infringement claims against Defendants concerning the '264 patent, or if Geoscope dismisses those claims.

is identified,” so they “fail to recite a specific solution to make the alleged improvement . . . concrete.” Br. 31–32 (quoting *Hawk Tech.*, 60 F.4th at 1358).

Geoscope’s only response to this point is that the lack of specificity is “irrelevant.” Opp. 37. But that contention runs headlong into Federal Circuit precedent—including *Hawk Tech.*, a case cited in Defendants’ opening brief (Br. 32), and not even addressed in Geoscope’s Opposition. Like Geoscope, the patentee in *Hawk Tech.* asserted that the claims addressed a “technical problem,” in that case “conserving bandwidth while preserving data” during digital video transmission. 60 F.4th at 1357. The Federal Circuit held that the claims “fail to recite a specific solution to make the alleged improvement . . . ‘concrete.’” *Id.* at 1358. “Stated otherwise, the . . . claims lack ‘sufficient recitation of *how* the purported invention improves the functionality’ of video surveillance systems.” *Id.* (cleaned up). The court held that the claims were thus abstract.

Far from an “irrelevant” consideration (Opp. 37), *Hawk Tech.* and other similar cases underscore that the specificity of claims is a critical factor in deciding whether they are abstract. And it is not up to Defendants to “identify what would suffice or how more detail could be provided.” *Id.* at 37–38. It is enough that the asserted claims of the ’264 patent undisputedly do not provide *any* detail as to how an active frequency channel is identified, even though that identification is the only asserted improvement embodied in the claims.

That is the difference between the ’264 patent and those considered in the cases Geoscope cites. In *Thales*, as explained above, the “claims specif[ied] a particular configuration of inertial sensors and a particular method of using the raw data from the sensors in order to more accurately calculate the position and orientation of an object on a moving platform.” 850 F.3d at 1349. Specifically, they “utilize[d] mathematical equations to determine the orientation of the object relative to the moving reference frame.” *Id.* at 1348. Given the “unconventional configuration of sensors” and “the unconventional choice of reference frame,” the claims were not abstract. *Id.* at

1349. Similarly, the claims in *Diamond v. Diehr* “describe[d] in detail a step-by-step method” for “molding precision synthetic rubber products.” 450 U.S. 175, 184 (1981). Nothing in the ’264 patent claims comes close to the level of detail in the completely different inventions claimed in *Thales* or *Diehr*. The claims are directed to an abstract idea.⁸

B. *Alice* Step Two: The Asserted Claims Lack an Inventive Concept

Geoscope’s sole argument at Step Two of the *Alice* analysis is that the inventive concept in the asserted claims of the ’264 patent is “using an active communication channel for [path loss] determinations.” Opp. 39; *see also id.* at 40. But “using an existing communication channel to determine signal loss” *is* the abstract idea to which the claims are directed. Br. 31. As such, that idea “cannot supply the inventive concept that renders the invention ‘significantly more’ than that ineligible concept.” *BSG*, 899 F.3d at 1290.

Geoscope has no response. It simply asserts without explanation that “the mere identification of a frequency channel in use” is not the inventive aspect of the claims. Opp. 40. But that is a straw man. The abstract idea that Defendants have identified is using such a channel “to determine signal loss” (Br. 31), which Geoscope’s opposition does not acknowledge (Opp. 39–40). Geoscope has failed to identify an inventive concept in the asserted claims of the ’264 patent, and the Court should hold them patent-ineligible under Section 101.

V. JUDGMENT ON THE PLEADINGS IS APPROPRIATE.

Finally, Geoscope repeatedly refers to its allegations in the Complaint, which Geoscope contends should overcome judgment on the pleadings. *See, e.g.*, Opp. 11–13, 18, 20, 22, 24–25, 29–30, 32, 35–37, 39. Those allegations, however, are merely the same arguments that Geoscope

⁸ Geoscope in passing accuses Defendants of “disregard[ing] dependent claims 15 and 20.” Opp. 39. But, as Defendants explained, those claims merely add a database and require multiple receivers, respectively (Br. 30–31), neither of which even Geoscope asserts was anything but conventional.

makes in opposition to this motion (and fail as a matter of law for the same reasons discussed above) or do nothing more than state a legal argument in conclusory fashion (and thus are insufficient to overcome this motion). *Dropbox, Inc. v. Synchronoss Techs., Inc.*, 815 F. App'x 529, 538 (Fed. Cir. 2020) (“Any allegation about inventiveness, wholly divorced from the claims or the specification does not defeat a motion to dismiss; only plausible and specific factual allegations that aspects of the claims are inventive are sufficient.”). It is not the case “that any allegation about inventiveness, wholly divorced from the claims or the specification, defeats a motion to dismiss.” *IBM*, 50 F.4th at 1379 (citation omitted). Geoscope’s allegations of inventiveness here cannot be squared with the Asserted Claims themselves, as explained above. They therefore cannot defeat a motion to dismiss.

VI. CONCLUSION

For the foregoing reasons, Defendants respectfully ask the Court to hold that the Asserted Claims of the '104, '358, '494, '753, '264, and '784 patents are not patent-eligible under 35 U.S.C. § 101, and accordingly grant judgment on the pleadings in Defendants’ favor and dismiss the respective Complaints with prejudice as to those patents.

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Respectfully submitted,

/s/ Stephen E. Noona
 Stephen E. Noona (VSB No. 25367)
 Clark J. Belote (VSB No. 87310)
 KAUFMAN & CANOLES, P.C.
 150 W. Main Street, Suite 2100
 Norfolk, VA 23510-1665
 Telephone: (757) 624-3000
 Facsimile: (888) 360-9092
 senoon@kaufcan.com
 cjbelote@kaufcan.com

Edward J. Bennett (VSB No. 40118)
 Adam D. Harber (*pro hac vice*)
 Andrew Trask (*pro hac vice*)

Benjamin N. Hazelwood (VSB No.96058)
Michael Xun Liu (*pro hac vice*)
Adam Pan (*pro hac vice*)
WILLIAMS & CONNOLLY
680 Maine Avenue SW
Washington, DC 20024
Telephone: (202) 434-5000
ebennett@wc.com
aharber@wc.com
atrask@wc.com
bhazelwood@wc.com
mliu@wc.com
apan@wc.com

Counsel for Defendant Google LLC

Dated: July 20, 2023

By: /s/ Craig C. Reilly
Craig C. Reilly (VSB No. 20,942)
craig.reilly@ccreillylaw.com
THE LAW OFFICES OF CRAIG C. REILLY
209 Madison Street, Suite 501
Alexandria, Virginia 22314
Tel: (703) 549-5354
Fax: (703) 549-5355

Brian M. Buroker (VSB No. 39,581)
bburoker@gibsondunn.com
Wendy W. Cai (*pro hac vice*)
wcai@gibsondunn.com
David Brzozowski (*pro hac vice*)
dbrzozowski@gibsondunn.com
GIBSON, DUNN & CRUTCHER LLP
1050 Connecticut Avenue, N.W.
Washington, DC 20036-5306
Tel: (202) 955-8295
Fax: (202) 831-6106

Brian A. Rosenthal (*pro hac vice*)
brosenthal@gibsondunn.com
GIBSON, DUNN & CRUTCHER LLP
200 Park Avenue
New York, New York 10166
Tel: (212) 351-4000
Fax: (212) 716-0839

Jaysen S. Chung (*pro hac vice*)
jschung@gibsondunn.com
GIBSON, DUNN & CRUTCHER LLP
1881 Page Mill Road
Palo Alto, CA 94304-1211
Tel: (650) 849-5300
Fax: (650) 849-5067

Nathaniel R. Scharn (*pro hac vice*)
nscharn@gibsondunn.com
GIBSON, DUNN & CRUTCHER LLP
3161 Michelson Drive
Irvine, CA 92612-4412
Tel: (949) 451-3800
Fax: (949) 451-4220

Counsel for Defendant Apple Inc.